CHLAMYDIA

✓ DISEASE AND EPIDEMIOLOGY

Clinical Description:

Most frequently, no noticeable symptoms are present. Males with urethral infections may have a mucoid or clear urethral discharge and dysuria (painful urination). Symptomatic females can have mucopurulent endocervical discharge, dysuria, and pain in the lower abdomen. Women may have pelvic inflammatory disease and inflammation of the liver due to *C. trachomatis*. Men may develop epididymitis. Infection of the rectum may also occur and is often asymptomatic. Perinatal infections may result in conjunctivitis and pneumonia in newborns.

Causative Agent:

Chlamydia trachomatis is an intracellular bacterial pathogen.

Differential Diagnosis:

The differential diagnosis for chlamydia includes gonorrhea.

Laboratory identification:

Chlamydia can be diagnosed by:

- Isolating the organism in tissue culture,
- Nucleic acids amplification tests (NAAT),
- Nucleic acid hybridization methods,
- Direct fluorescent antibody (DFA) tests, or
- Enzyme immunoassays.

NAAT for *C. trachomatis* is the most sensitive test currently available. It is the preferred method for the diagnostic evaluation and can be performed on either cervical or urine samples.

UPHL: The UPHL provides NAAT testing for both gonorrhea and chlamydia.

Treatment:

The following treatments are recommended:

- Azithromycin, 1 gram, PO x 1 dose OR
- Doxycycline, 100 mg, PO, twice daily for 7 days.

Doxycycline is contraindicated in pregnant women. However, clinical experience and studies suggest that azithromycin is safe and effective.

For additional treatment options please go to www.cdc.gov/std/treatment for the Sexually Transmitted Disease Treatment Guidelines, 2006

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Case fatality:

Chlamydia is not fatal.

Reservoir:

Humans are the only known natural hosts and reservoirs of infection.

Transmission:

Chlamydia is transmitted by direct sexual contact either through oral, vaginal or rectal sex. It is transmitted at birth through contact with an infected birth canal.

Susceptibility:

Susceptibility is general. No acquired immunity has been demonstrated; cellular immunity is immunotype-specific.

Incubation period:

The incubation period of chlamydia is highly variable and poorly defined. Usually a range of 7–14 days or longer for symptomatic disease is the most common period used.

Period of communicability:

The period of communicability is unknown. Relapses are probably common.

Epidemiology:

Chlamydia trachomatis has become the most prevalent sexually transmitted bacterial infection in North America and Europe. It is also the most prevalent reportable disease in Utah. In the United States, chlamydial genital infection is the most frequently reported infectious disease and the prevalence is highest in persons aged <25 years. There are an estimated three million cases in the U.S. reported annually. Reported rates are three times higher in females than in males. Several important sequelae can result from C. trachomatis infection in women; the most serious of these include PID, ectopic pregnancy and infertility. Some women who have uncomplicated cervical infection already have subclinical upper reproductive tract infection.

✓ PUBLIC HEALTH CONTROL MEASURES

Public health responsibility:

- Investigate all suspect cases of disease and fill out and submit appropriate disease investigation forms.
- Provide education to the general public, and clinicians regarding disease transmission and prevention.
- Identify clusters or outbreaks of this disease.
- Identify sources of exposure and stop further transmission.

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Prevention:

Emphasis should be placed on early detection and effective treatment of patients and their contacts.

- Educate the community in general health promotion measures;
 - Provide health and sex instruction that teaches the value of delaying sexual activity until the onset of sexual maturity as well as the importance of establishing mutually monogamous relationships and reducing the numbers of sexual partners;
 - Protect the community and controlling STDs in sex workers and their clients:
 - Discourage multiple sexual partners and anonymous or casual sexual activity;
 - o Teach methods of personal prophylaxis applicable before, during and after exposure, especially the correct and consistent use of condoms.
- Provide health care facilities for early diagnosis and treatment;
 - Encourage their use through education of the public about symptoms of sexually transmitted infections and modes of spread;
 - Make these services culturally appropriate and readily accessible, and acceptable, regardless of economic status;
 - o Establish intensive partner notification;
 - o Annual screening of sexually active adolescent girls should be routine.
 - Screening of adult women should also be considered if they are under 25, have multiple or new sex partners, and/or use barrier contraceptives inconsistently.

Chemoprophylaxis:

All sexual partners should receive prophylaxis as well as infants born to untreated mothers with chlamydia.

Vaccine:

None

Isolation and quarantine requirements:

Isolation: Avoid sexual contact until treated.

Hospital: Not applicable **Quarantine:** Not applicable



Reporting:

Chlamydia is a reportable disease.

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Case definition:

Chlamydia (1996): Clinical Description

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see Lymphogranuloma Venereum) and trachoma.

Laboratory Criteria

- o Isolation of C. trachomatis by culture, or
- Demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid

Case Classification

Confirmed: a case that is laboratory confirmed.

Case Investigation Process:

- Fill out a morbidity form
- Conduct a Client Interview
- Fill out a client interview record on original patient and field records for contacts identified
- Conduct field investigations on contacts
- Treatment and follow-up for contacts
- Complete interview record

Outbreaks:

A chlamydia outbreak occurs when the observed rate of disease in a geographical area exceeds the normal (endemic) rate.

Identification of case contacts:

Patients should be instructed to refer their sex partners for evaluation, testing and treatment. All identified sexual contacts of a confirmed case of chlamydia should be examined and treated, regardless of symptoms, if they had sexual contact with the patient during the 90 days preceding onset of symptoms in the patient or diagnosis of chlamydia. The most recent sex partner should be evaluated and treated, even if the time of the last sexual contact was greater than 90 days before symptom onset or diagnosis.

Case contact management:

Sex partners should be evaluated, tested, and treated if they had sexual contact with the patient during the 90 days preceding onset of symptoms in the patient or diagnosis of chlamydia. The most recent sex partner should be evaluated and treated, even if the time of the last sexual contact was greater than 90 days before symptom onset or diagnosis. Infants born to mother with untreated chlamydial infection should also be treated.

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All contacts should be instructed to abstain from sexual intercourse until they and their sex partners have completed treatment. Abstinence should be continued until seven days after a single-dose regimen or after completion of a seven-day regimen. Timely treatment of sex partners is essential for decreasing the risk for re-infecting the index patient.

✓ REFERENCES

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